

REMARKS

Applicant has incorporated previous claim 4 into claim 1. As amended, claim 1 patentably distinguishes over the art cited by the Examiner.

The Examiner, with respect to previous claim 4, states that the

"flow rates of the valves are considered future intended use and therefore fail to provide any further structural limitation to the claimed apparatus. Valve flow rates are easily and routinely adjusted for suitable use.

Accordingly the claims have not been further treated on the merits"

Applicant respectfully traverses the Examiner's conclusions in regard to this claim. The relative flow rates of the valves are inherent features of each of the valves. They impose structural limitations upon the valves and upon the related flow rates of each of the valves. Without the limitation setting forth the relative ratios of flow rates, the claim would be much broader than it is with those relative flow rates included in the claim. Accordingly, Applicant respectfully traverses the Examiner's conclusion that the claims have not been further treated on the merits.

Furthermore, Applicant traverses the Examiner's conclusion that "valve flow rates are easily and routinely adjusted for suitable use." The Examiner makes this conclusion without citing any prior art that shows adjustment of the flow rates to the relative flow rates set forth in claim 1. By choosing these flow rates Applicant has made possible the simplification of the filling of the clothes washer. Furthermore, Applicant has improved the efficiency of the clothes washer because the relative flow rates minimize the amount of energy necessary to heat the water for the loads within the clothes washer.

The Examiner has cited as a primary reference the fluid mixing valve of the Swanson reference, 4,290,450. However, Swanson does not disclose the relative flow rates set forth in claim 1. Swanson reference at column 5, lines 11-15 sets forth the sizes of the orifices 78, 80

and 82. These sizes reflect the flow rates, and a comparison of these sizes to the flow rates set forth in claim 1 are set forth below:

Swanson Reference Flow Rates	Flow Rates of Claim 1
.100 inches	1 unit
.290 inches	2.08 - 3.64 units
.180 inches	.25 - .36 units

While the first two flow rates of the Swanson and the flow rates claimed in claim 1 are similar, there is a considerable difference between the flow rate of the third orifice 82 in the Swanson reference and the flow rate set forth in claim 1. The flow rates in claim 1 for the cold water valve are substantially less than the flow rates for this valve set forth in the Swanson reference.

The Examiner states that "flow rates are easily and routinely adjusted for suitable use." The Examiner fails to recognize that there are an infinite number of permutations and combinations for the flow rates of the three valves, and that the choice of the particular flow rates set forth in claim 1 produce an unexpected result, namely a higher efficiency unit than shown in the prior art.

In view of the foregoing, claim 1 patentably distinguishes over the Swanson reference. Furthermore, the Examiner has cited the Hornung reference, 6,634,048 as teaching an automatic temperature control for clothes washers. Obviously automatic controls have been utilized in clothes washers in the past. However, the prior art does not disclose a control such as set forth in claim 1 which requires the opening and closing of valves having flow rates such as specified in claim 1. There is nothing in the Hornung reference to suggest how this could be done, and in fact

there is little in the Hornung reference which would suggest that the control system of the Hornung reference could be utilized in combination with the Swanson valve. There is no suggestion that the two references could or should be combined.

Accordingly, claim 1 is patentable in view of the cited art and should be allowed.

Claims 2 and 3 depend from claim 1 and are patentable for the reasons set forth as to that claim.

Claim 5 has been amended to incorporate the structure required by previous claim 3. Specifically, the claim requires that the hot valve, the cold valve and the low cold valve have flow rate ratios relative to one another that cause the first temperature to be between 115 and 120 degrees F, said second temperature to be between 75 and 100 degrees F, and said third temperature to be approximately 60 degrees F.

The Examiner again with respect to claim 3 states that "the ranges of temperatures are considered future intended use, and therefore, fail to provide further structural limitation to the claimed apparatus. Moreover, the working temperatures are dependent upon externally supplied water sources, which may vary greatly in temperature."

Applicant has, in the amendment to claim 5, added the limitation that the first source of hot water be at "up to 135 degrees F and be connected to the hot water inlet. The second source of cold water is to be at approximately 60 degrees F and connected to the cold water inlet." Thus Applicant has included in claim 1 the limitation as to the temperature of the externally supplied water sources.

Applicant emphasizes that the claim requires that the flow ratios of the three valves be chosen so as to produce the desired temperatures.

The Swanson reference at column 5, lines 22-35 sets forth the temperatures achieved by the various combinations of opening and closing of the three valves. Those temperatures are set forth below in comparison to the temperatures required by claim 5:

Swanson Temperatures	Temperatures of claim 5
120 degrees F	115 - 120 degrees F
96 degrees F	75 - 100 degrees F
93 degrees F	60 degrees F

As with the flow rates, the first two combinations are approximately the same between what is shown in Swanson and what is set forth in claim 5. However, there is a substantial difference in the third temperature achieved, the Swanson reference showing 93 degrees F and the claim requiring approximately 60 degrees F. Accordingly, the Swanson reference fails to disclose or suggest the temperature results obtained from the relative flow rate ratios of the three valves. Therefore claim 5 patentably distinguishes over the art cited by the Examiner and should be allowed.

Claims 6 and 7 depend from claim 5 and are patentable for the reasons set forth as to that claim.

In view of the foregoing, Applicant respectfully requests that a Notice of Allowance be issued.

No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,



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